

ABSTRACT OF THE DISCLOSURE

A micro pump using a ferro-fluid/magneto-rheological fluid to drive a working fluid is proposed. The micro pump has a body with an accommodating space and an opening that communicates with the accommodating space. A ferro-fluid/magneto-rheological fluid and a magnetic field generating unit are disposed on the body. As the ferro-fluid/magneto-rheological fluid is attracted to the magnetic field after being magnetized, the ferro-fluid/magneto-rheological fluid is deformed or shifted to drive the working fluid, so as to control the working fluid to flow in and out of the accommodating space. Accordingly, the pump is improved for its efficiency and precision to control the flow while the back flow of the working fluid is prevented.